INTERNATIONAL SEARCH REPORT

PCT/US 03/32692

| a. classification of subject matter IPC 7 G01K13/08 | | | | | | | |
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| | International Patent Classification (IPC) or to both national classification | ation and IPC | | | | | |
| B. FIELDS | SEARCHED cumentation searched (classification system followed by classification system followed by classific | ion symbols) | | | | | |
| IPC 7 | G01K | | | | | | |
| | | | | | | | |
| Documentati | ion searched other than minimum documentation to the extent that | such documents are included in the fields se | arched | | | | |
| (m) (1) (1) | ala base consulted during the international search (name of data b | ese and where practical search terms used) | | | | | |
| | | , , , , , , , , , , , , , , , , , , , | · | | | | |
| EPO-In | ternat | | · | | | | |
| | • | | | | | | |
| C. DOCUME | ENTS CONSIDERED TO BE RELEVANT | | | | | | |
| Category ° | Citation of document, with indication, where appropriate, of the re | elevant passages | Relevant to claim No. | | | | |
| | | | | | | | |
| Α | DE 44 31 045 A (BOSCH GMBH ROBER | Τ) | 1-4,7-9, 13,17, | | | | |
| | 7 March 1996 (1996-03-07) | | 18,20, | | | | |
| | , | | 21,24 | | | | |
| | the whole document | : | | | | | |
| A | US 5 200 697 A (ADLER JONATHAN M | ET AL) | 1,17-19 | | | | |
| | 6 April 1993 (1993-04-06) the whole document | · | | | | | |
| Α | & US 5 381 090 A | | 1,17-19 | | | | |
| | 10 January 1995 (1995-01-10) | | . • | | | | |
| | cited in the application | | , | | | | |
| | | | | | | | |
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| | | | • | | | | |
| | ther documents are listed in the continuation of box C. | χ Patent family members are listed | n annex. | | | | |
| | | | | | | | |
| * Special categories of clied documents: "T* later document published after the International filling date or priority date and not in conflict with the application but | | | | | | | |
| *A* document defining the general state of the art which is not considered to be of particular relevance invention | | | | | | | |
| filing | | "X" document of particular relevance; the cannot be considered novel or canno involve an inventive step when the do | t be considered to | | | | |
| which is clied to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the | | | | | | | |
| *O* docum | *O* document referring to an oral disclosure, use, exhibition or other means *O* document is combined with one or more other such document is combined with one or more other such documents, such combination being obvious to a person skilled | | | | | | |
| *P* docum | nent published prior to the international filing date but than the priority date claimed | in the art. '&' document member of the same patent | in the art. L' document member of the same patent family | | | | |
| | e actual completion of the international search | Date of mailing of the international sea | arch report | | | | |
| | 4 May 2004 | 11/05/2004 | | | | | |
| _ | mailing address of the ISA | Authorized officer | | | | | |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk | | | | | | |
| Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 | | Ramboer, P | | | | | |

INTERNATIONAL SEARCH REPORT

Information on patent family members

| l ational Application No |
|--------------------------|
| PCT/US 03/32692 |

| Patent document cited in search report | | Publication date | | Patent family member(s) | Publication date |
|--|---|------------------|----------------------|--|--|
| DE 4431045 | Α | 07-03-1996 | DE | 4431045 A1 | 07-03-1996 |
| US 5200697 | A | 06-04-1993 | DE JP JP US | 4239828 A1 3387534 B2 5264562 A 5381090 A | 03-06-1993 17-03-2003 12-10-1993 10-01-1995 |